

WDNR AIR MONITORING NETWORK REVIEW SUMMARY

January 2006

AIR MONITORING NETWORK CHANGES IMPLEMENTED IN 2005:

1. Initiated Fine Particulate Matter (PM_{2.5}) Federal Reference Method (FRM) sampling at Dane Co – Lowell School, on a 1 in 3 day schedule for one year. Sampling began on August 2, 2005. The Madison School District and Mayor's office requested this monitoring based on neighborhood concerns about air emissions from Madison Kipp (an aluminum die-casting operation nearby). Site operator, electricity, and lab fees are provided by City of Madison Health Department, Madison School District, and Wisconsin Department of Health and Family Services respectively. (Fine particulate matter or PM_{2.5} is particulate matter with aerodynamic diameter of 2.5 microns or less.)
2. Selected site for installation of PM_{2.5} FRM sampler in La Crosse. Sampling will begin soon, on a 1 in every 6 day schedule, for one year. Data from La Crosse, WI and Rochester, MN will be evaluated to determine whether further FRM or continuous monitoring in La Crosse is warranted in the future. DNR staff requested PM_{2.5} monitoring in La Crosse due to local concerns about winter-time inversions within the Mississippi river valley, which is bounded by tall bluffs.
3. Added continuous PM₁₀ monitoring at Dodge Co – Mayville site in February 2005. (PM₁₀ is particulate matter with aerodynamic diameter of 10 microns or less.)
4. Reduced PM_{2.5} speciation sampling network from six to five sites, by eliminating speciation sampling at Manitowoc Co - Woodland Dunes, effective February 2005. EPA reduced funding for speciation in order to redirect the funds to monitoring in PM_{2.5} nonattainment areas.
5. Reduced ozone monitoring network by one site. The Green County – Rural Monroe ozone site was shut down at the end of the 2004 ozone season as a budget cutting measure. Ozone levels measured at that site since August 2000 were below the national ambient air quality standard for ozone. This site was somewhat redundant for the Rock County site in Beloit which typically reported higher ambient ozone levels than the Green County site.

PROPOSED 2006 AIR MONITORING NETWORK CHANGES:

1. Effective January 1, 2006, reduce the PM_{2.5} speciation sampling network from five to four sites, by eliminating speciation sampling at Kenosha – Chiwaukee. This cut is necessary because EPA reduced funding for speciation work in order to redirect the funds to speciation monitoring in PM_{2.5} nonattainment areas.
2. By Spring 2006, identify a new funding source (not federal 105 grant) for 3 ozone sites (UWM North, Popple River, and Grafton). DNR leadership is committed to the continued operation of these sites. However, if a new funding source is not identified these sites will be shut down effective Spring 2006.
3. Effective Spring 2006, reduce ozone monitoring network by one site. The Waukesha - Carroll College ozone site was shut down at the end of the 2005 ozone season, for building demolition. In anticipation of this change, we placed an ozone monitor at Waukesha – Cleveland Avenue. A comparison of the data for this site and the Waukesha-Cleveland Ave site supports shut down of the Carroll College site.

4. Shut down carbon monoxide monitoring at Appleton Avenue.
5. Shut down nitrogen oxides monitoring at Harrington Beach.
6. Shut down all remaining DNR operated total suspended particulate matter (TSP) sites: Superior, Trout Lake, Eau Claire – Longfellow School, Green Bay Younkers, and Waupaca. Discontinue TSP metals sampling.
7. Shut down all but two PM10 sites. (Note, PM10 is particulate matter with aerodynamic diameter less than or equal to 10 microns) Shut down PM10 at Superior, Trout Lake, Great Lakes Research Facility, Green Bay Younkers, Waupaca. Move the Great Lakes Research Facility PM10 sampler to the FAA site for collocated PM10 quality assurance requirement. End support of PM10 sampling by Eau Claire Health Dept at Eau Claire Longfellow School. Eau Claire Health Department will continue sampling for PM10 at their own expense, without DNR support. DNR will continue to loan a sampler to the Eau Claire Health Department.
8. End the Coarse Particulate Matter special study at the Green Bay Younker's and Waupaca sites, effective no sooner than January 2006 and no later than July 2006. (Note coarse particulate matter is particulate matter between 10 and 2.5 microns in size.) The specific shut down date will be determined based on public comment, DNR review of the recent EPA proposal for a new Coarse Particulate Matter standard, and review of current federal grant funding levels.
9. Discontinue support of meteorological monitoring equipment at DNR Bong. This met site is used by DNR wildlife to track wind conditions during prairie burns. DNR will leave the met equipment in place, but will discontinue maintenance and QA/QC, and will discontinue polling during non-burn season or entirely. DNR air monitoring staff will be available to perform emergency maintenance as required.
10. Continue the Livestock Air Monitoring Study, August 2005 to August 2008. Through a collaborative effort with DATCP, UW, and livestock industry groups, DNR is conducting an air monitoring study, August 2005 to August 2008. The study is funded through a grant from USDA NRCS.
11. Effective in 2006, initiate precursor gas monitoring at Dodge Co – Mayville, specifically high sensitivity CO, SO₂ and NO_y. EPA Region 5 has directed DNR to conduct this monitoring as part of the National Monitoring Strategy, and has included funding in the PM_{2.5} 103 grant to support this effort.